

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 0 724 065 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
17.03.1999 Bulletin 1999/11

(51) Int Cl.⁶: **E21B 34/12, E21B 23/00**

(43) Date of publication A2:
31.07.1996 Bulletin 1996/31

(21) Application number: **96300607.7**

(22) Date of filing: **29.01.1996**

(84) Designated Contracting States:
DE FR GB NL

(30) Priority: **30.01.1995 US 381571**

(71) Applicant: **HALLIBURTON COMPANY**
Dallas, Texas 75381-9052 (US)

(72) Inventors:
• Crow, Robert W.
Irving, Texas 75061 (US)
• Longbottom, James R.
Whitesboro, Texas 76273 (US)

• Gano, John C.
Carrollton, Texas 75007 (US)
• Hagen, Karluf
Stavanger (NO)
• Van Le, Nam
Carrollton, Texas 75007 (US)

(74) Representative: **Waln, Christopher Paul et al**
A.A. THORNTON & CO.
Northumberland House
303-306 High Holborn
London WC1V 7LE (GB)

(54) **Tubing actuated valve assembly and method of placing a tubing into a borehole**

(57) A tubing-manipulated valve assembly (200) for control of fluid flow in a flowbore. The valve assembly (200) comprises a pivotable flapper plate (202) that is specially-shaped to include a semicylindrical channel which substantially aligns with a flowbore when the plate (202) is in an open position to cause the plate to conform closely to the interior profile of a wellbore. The plate (202) is operable between an open position in which the plate (202) is generally aligned with the flowbore and a closed position in which the plate (202) substantially seals the flowbore.

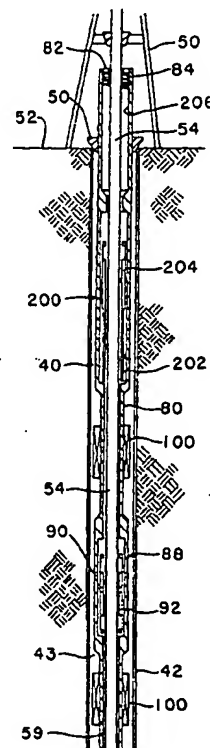


FIG. 1A

EP 0 724 065 A3

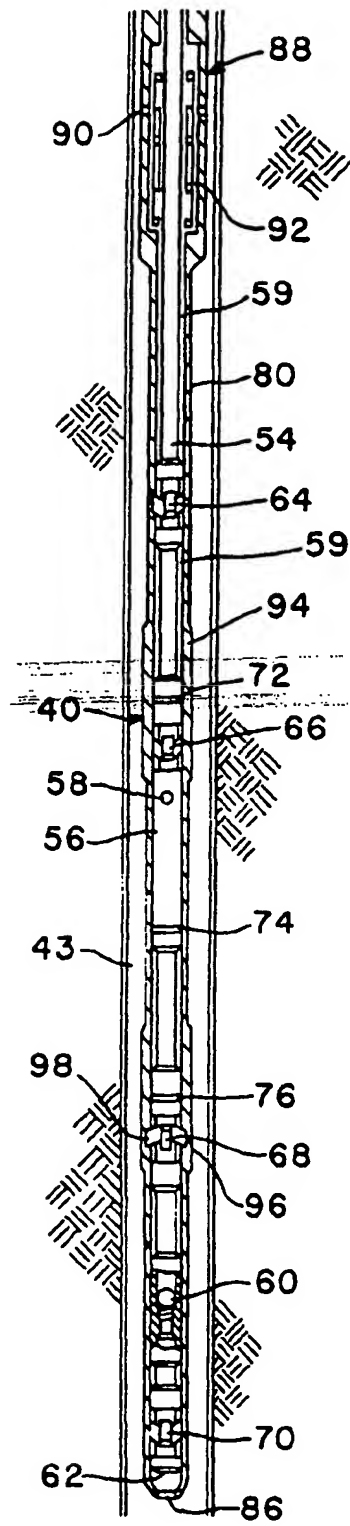


FIG.1B



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 96 30 0607

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.8)
A	US 4 457 376 A (CARMODY MICHAEL A ET AL) 3 July 1984 * the whole document * ---	1,4,9,10	E21B34/12 E21B23/00 E21B34/06
A	US 5 137 089 A (HINES CRAIG D ET AL) 11 August 1992 * figures 17-20 * ---	1	
A	US 4 531 587 A (FINEBERG DOUGLAS H) 30 July 1985 * abstract * * column 2, line 10 - line 59 * * claims 1,8-10 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.8)
			E21B
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 21 January 1999	Examiner Schaeffler, C
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03/92 (P04/01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 96 30 0607

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

21-01-1999

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 4457376	A	03-07-1984	NONE		
US 5137089	A	11-08-1992	GB	2248464 A, B	08-04-1992
			NL	9101604 A	06-05-1992
			US	5323859 A	28-06-1994
US 4531587	A	30-07-1985	CA	1231302 A	12-01-1988
			GB	2154632 A, B	11-09-1985
			GB	2198170 A, B	08-06-1988

EPO FORM P0439

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82